

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

Listing of Claims:

1. (currently amended) A method of determining how the solubility of a solid compound-of-interest is affected by its form, which comprises:

- (a) preparing an array of samples, each comprising a controlled amount of the compound-of-interest, wherein the physical or chemical form of the compound-of-interest in at least two of the samples is different;
- (b) forming a liquid portion of each sample by adding a solvent to each sample; and
- (c) determining how much compound-of-interest dissolved in the liquid portion of each sample.

2. (currently amended) The method of claim 1, ~~wherein:~~

- ~~(a) the method further comprises~~ comprising the step of separating the liquid portion of each sample from any solid portion each sample may contain prior to the determination;
- ~~(b) the solid remaining in a sample after separation of its liquid portion is analyzed to determine whether any change of form occurred;~~
- ~~(c) the physical form of the compound of interest in one sample differs from the physical form of the compound of interest in another sample;~~
- ~~(d) the compound of interest in one sample is amorphous and the compound of interest in another sample is crystalline;~~
- ~~(e) the compound of interest in one sample is crystalline and has a first crystal structure and/or a first crystal habit and the compound of interest in another sample is crystalline and has a second crystal structure and/or a second crystal habit, wherein the second crystal structure differs from the first crystal structure and/or the second crystal habit differs from the first crystal habit;~~
- ~~(f) the chemical form of the compound of interest in one sample differs from the chemical form of the compound of interest in another sample;~~

- ~~(g) the compound of interest in one sample is a salt, solvate, or co-crystal of a compound and the compound of interest in another sample is a different salt, solvate, or co-crystal of the compound;~~
- ~~(h) the compound of interest in one sample is a compound and the compound of interest in another sample is a salt, solvate, or co-crystal of the compound;~~
- ~~(i) the amount of compound of interest is less than about 100 micrograms;~~
- ~~(j) the amount of compound of interest is less than about 50 micrograms; or~~
- ~~(k) the amount of compound of interest is less than about 10 micrograms.~~

3. (currently amended) A method of determining how the dissolution of a solid compound-of-interest is affected by its form, which comprises:

- (a) preparing an array of samples, each comprising a controlled amount of the compound-of-interest, wherein the physical or chemical form of the compound-of-interest in at least two of the samples is different;
- (b) forming a liquid portion of each sample by adding a solvent to each sample; and
- (c) determining how much compound-of-interest dissolved in the liquid portion of each sample as a function of time.

4. (currently amended) The method of claim 3, ~~wherein:~~

- ~~(a) the method further comprises comprising the step of separating the liquid portion of each sample from any solid portion each sample may contain prior to the determination;~~
- ~~(b) the solid remaining in a sample after separation of its liquid portion is analyzed to determine whether any change of form occurred; or~~
- ~~(c) the method further comprises:~~
 - ~~(i) — preparing a first sub-array of samples, each comprising a controlled amount of the compound of interest in a first form;~~
 - ~~(ii) — preparing a second sub-array of samples, each comprising a controlled amount of the compound of interest in a second form that differs from the first form;~~
 - ~~(iii) — forming a liquid portion of each sample in the first sub-array by adding a controlled amount of a solvent to each sample in the first sub-array at a time point that is unique to each sample in the first sub-array;~~

- ~~(iv) — forming a liquid portion of each sample in the second sub-array by adding a controlled amount of a solvent to each sample in the second sub-array at a time point that is unique to each sample in the second sub-array but is the same as the time point at which solvent was added to a sample in the first sub-array;~~
- ~~(v) — separating the liquid portion of each sample in the first and second sub-arrays from any solid portion each sample may contain at a time point that is the same for each sample in the first and second sub-arrays; and~~
- ~~(vi) — determining how much compound of interest dissolved in the liquid portion of each sample;~~
- ~~(d) the physical form of the compound of interest in one sample differs from the physical form of the compound of interest in another sample;~~
- ~~(e) the compound of interest in one sample is amorphous and the compound of interest in another sample is crystalline;~~
- ~~(f) the compound of interest in one sample is crystalline and has a first crystal structure and/or a first crystal habit and the compound of interest in another sample is crystalline and has a second crystal structure and/or a second crystal habit, wherein the second crystal structure differs from the first crystal structure and/or the second crystal habit differs from the first crystal habit;~~
- ~~(g) the chemical form of the compound of interest in one sample differs from the chemical form of the compound of interest in another sample;~~
- ~~(h) the compound of interest in one sample is a salt, solvate, or co-crystal of a compound and the compound of interest in another sample is a different salt, solvate, or co-crystal of the compound;~~
- ~~(i) the compound of interest in one sample is a compound and the compound of interest in another sample is a salt, solvate, or co-crystal of the compound;~~
- ~~(j) the amount of compound of interest is less than about 100 micrograms;~~
- ~~(k) the amount of compound of interest is less than about 50 micrograms; or~~
- ~~(l) the amount of compound of interest is less than about 10 micrograms.~~

5. (currently amended) A method of determining how the stability of a solid compound-of-interest is affected by its form, which comprises:

- (a) preparing an array of samples, each comprising a controlled amount of the compound-of-interest, wherein the physical or chemical form of the compound-of-interest in at least two of the samples is different;
- (b) exposing the compound-of-interest in each sample to a condition that may affect the stability of the compound-of-interest; and
- (c) determining whether the form or chemical composition of the compound-of-interest in each sample changed.

6. (currently amended) The method of claim 5, wherein:

- ~~(a) the condition is pH, ionic strength, counter-ion concentration, relative humidity, radiation, oxidative conditions, mechanical stress, temperature, or time;~~
- ~~(b) the physical form of the compound of interest in one sample differs from the physical form of the compound of interest in another sample;~~
- ~~(c) the compound of interest in one sample is amorphous and the compound of interest in another sample is crystalline;~~
- ~~(d) the compound of interest in one sample is crystalline and has a first crystal structure and/or a first crystal habit and the compound of interest in another sample is crystalline and has a second crystal structure and/or a second crystal habit, wherein the second crystal structure differs from the first crystal structure and/or the second crystal habit differs from the first crystal habit;~~
- ~~(e) the chemical form of the compound of interest in one sample differs from the chemical form of the compound of interest in another sample;~~
- ~~(f) the compound of interest in one sample is a salt, solvate, or co-crystal of a compound and the compound of interest in another sample is a different salt, solvate, or co-crystal of the compound;~~
- ~~(g) the compound of interest in one sample is a compound and the compound of interest in another sample is a salt, solvate, or co-crystal of the compound;~~
- ~~(h) the amount of compound of interest is less than about 100 micrograms;~~
- ~~(i) the amount of compound of interest is less than about 50 micrograms; or~~
- ~~(j) the amount of compound of interest is less than about 10 micrograms.~~

7-23. (canceled)

24. (new) The method of claim 2, further comprising the step of analyzing the solid remaining in a sample after separation of its liquid portion to determine whether any change of form occurred.

25. (new) The method of claim 4, further comprising the step of analyzing the solid remaining in a sample after separation of its liquid portion to determine whether any change of form occurred.

26. (new) The method of claim 3, wherein said method comprises the steps of:
- (i) preparing a first sub-array of samples, each comprising a controlled amount of the compound-of-interest in a first form;
 - (ii) preparing a second sub-array of samples, each comprising a controlled amount of the compound-of-interest in a second form that differs from the first form;
 - (iii) forming a liquid portion of each sample in the first sub-array by adding a controlled amount of a solvent to each sample in the first sub-array at a time point that is unique to each sample in the first sub-array;
 - (iv) forming a liquid portion of each sample in the second sub-array by adding a controlled amount of a solvent to each sample in the second sub-array at a time point that is unique to each sample in the second sub-array but is the same as one of the time points at which solvent was added to one of the samples in the first sub-array;
 - (v) separating the liquid portion of each sample in the first and second sub-arrays from any solid portion each sample may contain at a time point that is the same for each sample in the first and second sub-arrays; and
 - (vi) determining how much compound-of-interest dissolved in the liquid portion of each sample.

27. (new) The method of claim 1, wherein the compound-of-interest in one sample is amorphous and the compound-of-interest in another sample is crystalline.

28. (new) The method of claim 1, wherein the compound-of-interest in one sample is a salt, solvate, or co-crystal of a compound and the compound-of-interest in another sample is a different salt, solvate, or co-crystal of the compound.

29. (new) The method of claim 1, wherein the compound-of-interest in one sample is a compound and the compound-of-interest in another sample is a salt, solvate, or co-crystal of the compound.

30. (new) The method of claim 3, wherein the compound-of-interest in one sample is amorphous and the compound-of-interest in another sample is crystalline.

31. (new) The method of claim 3, wherein the compound-of-interest in one sample is a salt, solvate, or co-crystal of a compound and the compound-of-interest in another sample is a different salt, solvate, or co-crystal of the compound.

32. (new) The method of claim 3, wherein the compound-of-interest in one sample is a compound and the compound-of-interest in another sample is a salt, solvate, or co-crystal of the compound.

33. (new) The method of claim 5, wherein the compound-of-interest in one sample is amorphous and the compound-of-interest in another sample is crystalline.

34. (new) The method of claim 5, wherein the compound-of-interest in one sample is a salt, solvate, or co-crystal of a compound and the compound-of-interest in another sample is a different salt, solvate, or co-crystal of the compound.

35. (new) The method of claim 5, wherein the compound-of-interest in one sample is a compound and the compound-of-interest in another sample is a salt, solvate, or co-crystal of the compound.